

REMARKS

In the Office Action the Examiner noted that claims 1-20 are pending in the application, and the Examiner rejected all claims. The Examiner's rejections are traversed below, and reconsideration of all rejected claims is respectfully requested.

Claim Rejections Under 35 USC §102

In items 3-8 on pages 2-4 of the Office Action the Examiner rejected claims 1, 3, and 5-20 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. US 2003/0193854 A1, issued to Lee et al. (hereinafter referred to as "Lee"). The Applicants respectfully traverse the Examiner's rejections of these claims.

Claim 1 of the present application recites an optical pickup actuator in which a first magnet is installed on the base so as to at least partially be positioned inside a cavity in a coil installed on the base, "wherein an outer surface of the first magnet facing the coil is polarized into a first pole and an inner surface of the first magnet is polarized into a second pole." The Applicants respectfully submit that at least this feature of claim 1 is not disclosed in Lee.

The Examiner states that Lee discloses an optical disc drive in which "a second magnet (22) [is] installed outside the cavity so as to at least partially face the first magnet, so that a portion of the coil is positioned between the first magnet and the second magnet, wherein an outer surface of the first magnet facing the coil is polarized into a first pole and an inner surface of the first magnet is polarized into a second pole (inherent-magnetic surfaces are polarized to a N-S orientation)." The Applicants respectfully disagree with the Examiner's reading of Lee.

First, the Examiner has misidentified the yoke 22 of Lee as a second magnet, but the Applicants believe that this error has no bearing on the argument presented by the Examiner. Secondly, the magnet 21 that is disposed within the focusing coil 13 of Lee does not have an outer surface polarized into a first pole and an inner surface polarized into a second pole, which is in direct contrast to claim 1 of the present application. The Examiner has stated that "inherent-magnetic surfaces are polarized to a N-S orientation." Therefore, since the magnet 21 has only one surface, i.e., the outer surface, then it is apparent from the statement of the Examiner, as well as the disclosure of Lee, that a portion of the outer surface has an N polarization, and a portion of the outer surface has an S polarization. Different directions of electromagnetic force generated between the magnet 21 and the focusing coil 13, due to the different surface polarities of the magnet 21 acted upon by the current of the focusing coil 13, is

one aspect that is overcome by the present application. The magnet 21 of Lee has at least a portion of the outer surface of the magnet 21 that is acted upon in one direction by the current in the focusing coil 13, and at least another portion of the outer surface of the magnet 21 that is acted upon in substantially the opposite direction by the current in the focusing coil 13. In other words, the outer surface of the magnet 21 of Lee is not polarized into a first pole, and, further, there is no inner surface of the magnet 21 to be polarized into a second pole. This is in direct contrast to claim 1 of the present application.

Therefore, Lee does not disclose at least the feature "wherein an outer surface of the first magnet facing the coil is polarized into a first pole and an inner surface of the first magnet is polarized into a second pole." Accordingly, Lee does not disclose every element of the Applicants' claim 1. In order for a reference to anticipate a claim, the reference must teach each and every element of the claim (MPEP §2131). Therefore, since Lee does not disclose the features recited in independent claim 1, as stated above, it is respectfully submitted that claim 1 patentably distinguishes over Lee, and withdrawal of the §102(e) rejection is earnestly and respectfully solicited.

Claim 3 of the present application also recites the features "wherein an outer surface of the first magnet facing the coil is polarized into a first pole and an inner surface of the first magnet is polarized into a second pole." Therefore, for the reasons presented in relation to claim 1 of the present application above, it is respectfully submitted that claim 3 also patentably distinguishes over Lee.

Claims 5 and 6 depend from claims 1 and 3, respectively, and include all of the features of those claims plus additional features which are not taught or suggested by Lee. Therefore, it is respectfully submitted that claims 5 and 6 also patentably distinguish over Lee.

Claim 7 of the present application recites "generating a plurality of forces from the flow of current, wherein each of the plurality of forces is generated in substantially the same direction as a main moving force to move a blade." As discussed in relation to claim 1 above, Lee discloses a magnet 21 which has different polarities located on the outer surface of the magnet 21, and therefore the current passing through the focusing coil 13 will generate electromagnetic force in a plurality of directions depending upon the polarity of the respective portion of the outer surface of the magnet 21 which is facing the focusing coil 13. For example, the portion of the focusing coil 13 located between the magnets 21 will produce a force in one direction when current is applied, while at the same time the portion of the focusing coil 13 opposite to the portion located between the magnets 21 will produce a force in the opposite direction. Therefore, Lee does not disclose

at least the feature of generating a plurality of forces in substantially the same direction as a main moving force, which is in direct contrast to claim 7 of the present application. Therefore, it is respectfully submitted that claim 7 also patentably distinguishes over Lee.

Claim 8 depends from claim 7 and includes all of the features of that claim plus additional features which are not taught or suggested by Lee. Therefore, it is respectfully submitted that claim 8 also patentably distinguishes over Lee.

Claim 9 of the present application recites the feature "wherein each of the plurality of forces generated by the device substantially act to move the blade in a same direction as a main driving force." As discussed in relation to claim 7 of the present application, Lee does not disclose at least this feature of claim 9. Therefore, it is respectfully submitted that claim 9 also patentably distinguishes over Lee.

Claims 10-11 depend from claim 9 and include all of the features of that claim plus additional features which are not taught or suggested by Lee. Therefore, it is respectfully submitted that claims 10-11 also patentably distinguish over Lee.

Claim 12 of the present application recites the feature "wherein an outer surface of the first magnet facing the focusing coil is polarized into a first pole and an inner surface of the first magnet is polarized into a second pole. As discussed in relation to claim 1 of the present application, Lee does not disclose at least this feature of claim 12. Therefore, it is respectfully submitted that claim 12 also patentably distinguishes over Lee.

Claim 13 depends from claim 12 and includes all of the features of that claim plus additional features which are not taught or suggested by Lee. Therefore, it is respectfully submitted that claim 13 also patentably distinguishes over Lee.

Claim 14 of the present application recites "a first magnet having an opening in the center thereof and disposed in the cavity of the focusing coil." The Examiner has not addressed this feature in the current Office Action, but merely grouped this claim in with the rejection of the other independent claims. The Applicants respectfully submit that the Examiner has not provided any basis for the rejection of this claim. Further, Lee does not disclose a magnet having an opening in the center thereof, which is in direct contrast to claim 14 of the present application. Therefore, it is respectfully submitted that claim 14 also patentably distinguishes over Lee.

Claims 15-16 depend from claim 14 and include all of the features of that claim plus additional features which are not taught or suggested by Lee. For example, claim 15 recites the

feature in which "inner and outer surfaces of the first magnet are polarized into opposite poles." The Examiner discusses Figure 8 of Lee in his rejections of these claims, but it is apparent from Figure 8 that none of the magnets 15 have inner and outer surfaces. Further, assuming arguendo that the magnets 15 do have inner and outer surfaces, it is apparent that the surfaces facing the coil of the two magnets have opposite polarities, which is plainly shown in Figure 8 by the resulting opposite forces F. This is also supported in the specification, which states that "[a]lthough the current flows in a predetermined direction, a pair force is applied to the blade 10 since the opposite polarities of the tilting magnets 15 are disposed on opposite portions of the blade 10. Since this pair force is a moment in a direction of an X axis, the blade 10 moves about the X axis to perform the tilting operation" (Paragraph [0051]). Therefore, it is respectfully submitted that claims 15-16 also patentably distinguish over Lee.

Claim 17 of the present application recites "a first magnet having an opening in the center thereof, and disposed in a cavity inside the focusing coil." As discussed above in relation to claim 14, Lee does not disclose at least this feature of claim 17. Therefore, it is respectfully submitted that claim 17 also patentably distinguishes over Lee.

Claim 18 depends from claim 17 and includes all of the features of that claim plus additional features which are not taught or suggested by Lee. Therefore, it is respectfully submitted that claim 18 also patentably distinguishes over Lee.

Claim 19 of the present application recites "forces in a front, a rear, a left, and a right portion of the focusing coil and a resultant of the forces acts in substantially a same direction as a main moving force to move the blade." As discussed above at least in relation to claims 1 and 15 of the present application, Lee does not disclose these forces acting in substantially the same direction. Therefore, it is respectfully submitted that claim 19 also patentably distinguishes over Lee.

Claim 20 depends from claim 19 and includes all of the features of that claim plus additional features which are not taught or suggested by Lee. Therefore, it is respectfully submitted that claim 20 also patentably distinguishes over Lee.

Claim Rejections Under 35 USC §103

In item 11 on pages 4-5 of the Office Action the Examiner rejected claims 2 and 4 under 35 U.S.C. §103(a) as being unpatentable over Lee in view of U.S. Patent No. 5,136,565, issued to Ooyama et al. (hereinafter referred to as "Ooyama"). The Applicants respectfully traverse the

Examiner's rejections of these claims.

Claims 2 and 4 depend from claims 1 and 3, respectively. As discussed in the previous section of this Response, claims 1 and 3 patentably distinguish over Lee. Further, Ooyama does not cure at least the discussed deficiencies of Lee regarding claims 1 and 3. Therefore, it is respectfully submitted that claims 2 and 4 also patentably distinguish over the cited references.

Summary

There being no further outstanding objections or rejections, it is respectfully submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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